

Znfx1 Cas9-KO Strategy

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Project Overview

Project Name

Znfx1

Project type

Cas9-KO

Strain background

C57BL/6JGpt

Knockout strategy

This model will use CRISPR/Cas9 technology to edit the *Znfx1* gene. The schematic diagram is as follows:



- The *Znfx1* gene has 5 transcripts. According to the structure of *Znfx1* gene, exon3-exon5 of *Znfx1-201* (ENSMUST00000048988.13) transcript is recommended as the knockout region. The region contains 2069bp coding sequence. Knock out the region will result in disruption of protein function.
- In this project we use CRISPR/Cas9 technology to modify *Znfx1* gene. The brief process is as follows: CRISPR/Cas9 system

- The *Znfx1* gene is located on the Chr2. If the knockout mice are crossed with other mice strains to obtain double gene positive homozygous mouse offspring, please avoid the two genes on the same chromosome.
- This Strategy is designed based on genetic information in existing databases. Due to the complexity of biological processes, all risk of the gene knockout on gene transcription, RNA splicing and protein translation cannot be predicted at the existing technology level.

Gene information (NCBI)

Znfx1 zinc finger, NFX1-type containing 1 [Mus musculus (house mouse)]

Gene ID: 98999, updated on 31-Jan-2019

Summary



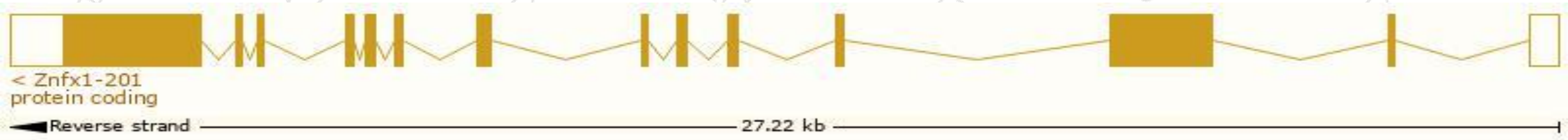
Official Symbol	Znfx1 provided by MGI
Official Full Name	zinc finger, NFX1-type containing 1 provided by MGI
Primary source	MGI:MGI:2138982
See related	Ensembl:ENSMUSG00000039501
Gene type	protein coding
RefSeq status	VALIDATED
Organism	Mus musculus
Lineage	Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Euarchontoglires; Glires; Rodentia; Myomorpha; Muroidea; Muridae; Murinae; Mus; Mus
Also known as	AI481105, Astx3
Expression	Ubiquitous expression in kidney adult (RPKM 12.8), genital fat pad adult (RPKM 12.8) and 28 other tissues See more
Orthologs	human all

Transcript information (Ensembl)

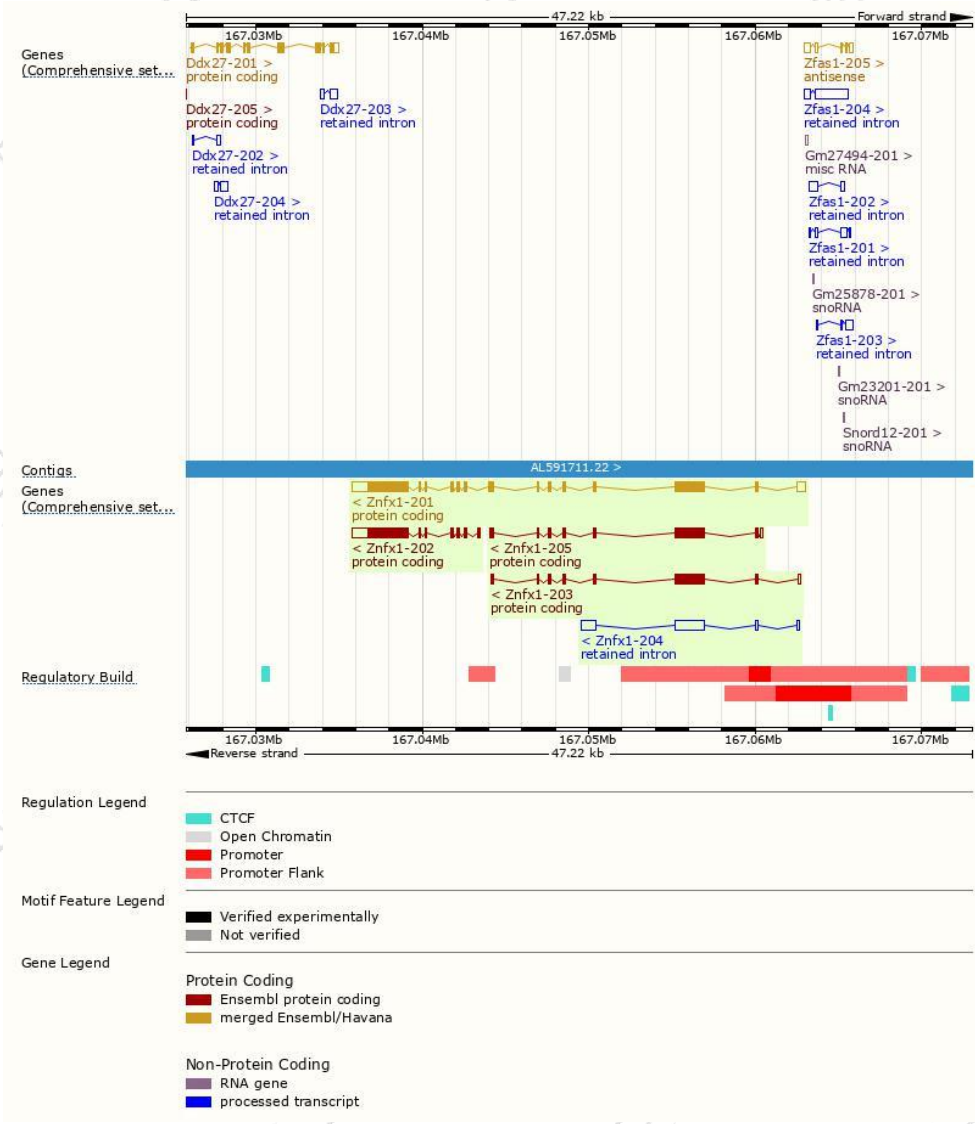
The gene has 5 transcripts,all transcripts are shown below:

Name	Transcript ID	bp	Protein	Biotype	CCDS	UniProt	Flags
Znfx1-201	ENSMUST00000048988.13	7218	1909aa	Protein coding	CCDS38337	Q8R151	TSL:1 GENCODE basic APPRIS P1
Znfx1-202	ENSMUST00000067584.6	4147	1045aa	Protein coding	CCDS71198	A2A5R6	TSL:1 GENCODE basic
Znfx1-205	ENSMUST00000155281.7	2751	869aa	Protein coding	-	A2A5R5	CDS 3' incomplete TSL:1
Znfx1-203	ENSMUST00000128676.1	2695	840aa	Protein coding	-	A2A5R4	CDS 3' incomplete TSL:1
Znfx1-204	ENSMUST00000135967.1	2904	No protein	Retained intron	-	-	TSL:1

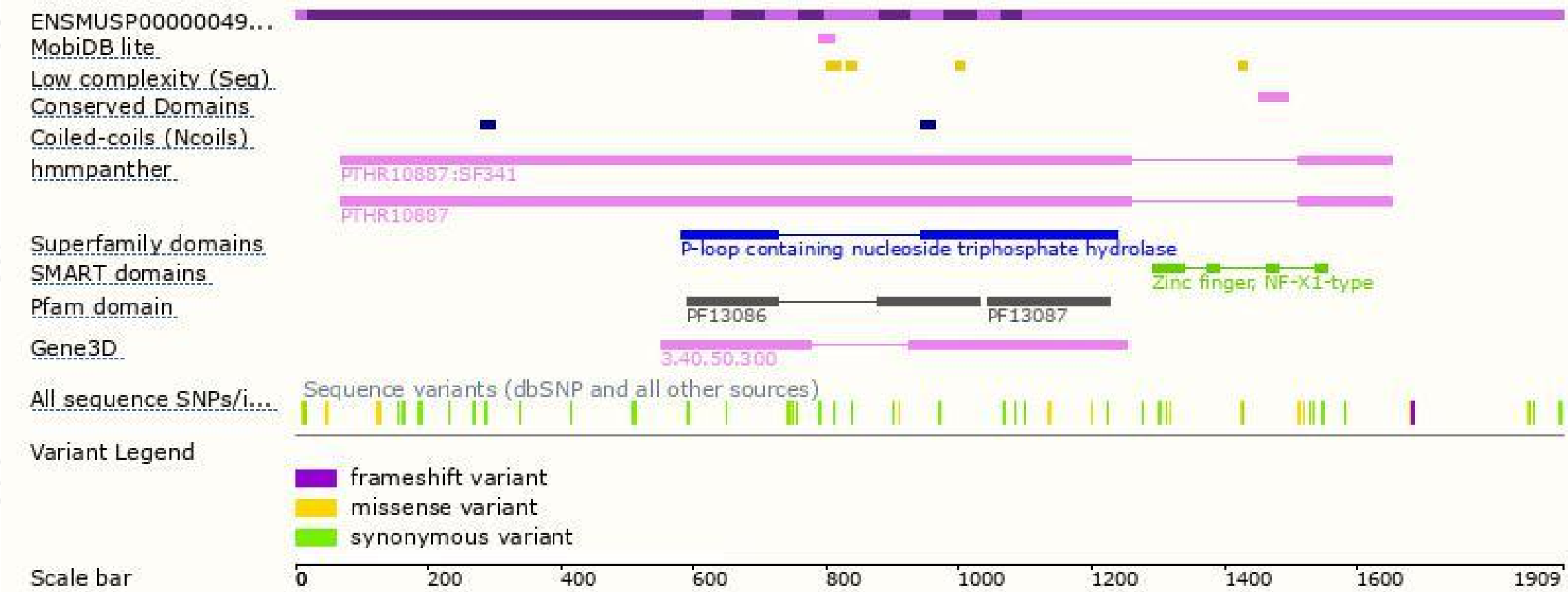
The strategy is based on the design of *Znfx1-201* transcript,The transcription is shown below



Genomic location distribution



Protein domain



If you have any questions, you are welcome to inquire.

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